

CLAIMS

What is claimed is:

1. A method in a single network element, the method comprising:
receiving, at the network element, a packet from a remote client, the packet being addressed to a destination;
examining, based on one or more policies associated with the packet, to determine whether the packet should be redirected to another destination;
forwarding the packet, via a logical interface, to a redirect facility within the network element if the packet should be redirected to another destination; and
forwarding a return packet from the redirect facility to the remote client, the return packet including a redirect address associated with another destination.
2. The method of claim 1, further comprising routing the packet, via a physical interface, to a destination indicated by a destination address within the packet or based on the one or more routing policies, if the packet is determined not to be redirected to another destination..
3. The method of claim 1, further comprising specifying a timeout value within the return packet to indicate a time period within which a redirect message is displayed at the remote client.
4. The method of claim 3, wherein the timeout value is determined based on the one or more routing policies associated with the packet.

5. The method of claim 1, further comprising configuring the one or more policies via an application programming interface (API).
6. The method of claim 1, further comprising:
 - determining whether one or more replacement routing policies exist for the context associated with the packet; and
 - replacing the original routing policies with the replacement routing policies for subsequent accesses, if the replacement routing policies exist.
7. The method of claim 1, wherein whether the packet should be redirected to another destination is determined based on whether the packet is an HTTP (hypertext transport protocol) packet.
8. A machine-readable medium having executable code to cause a machine to perform a method in a single network element, the method comprising:
 - receiving, at the network element, a packet from a remote client, the packet being addressed to a destination;
 - examining, based on one or more policies associated with the packet, to determine whether the packet should be redirected to another destination;
 - forwarding the packet, via a logical interface, to a redirect facility within the network element if the packet should be redirected to another destination; and
 - forwarding a return packet from the redirect facility to the remote client, the return packet including a redirect address associated with another destination.
9. The machine-readable medium of claim 8, wherein the method further comprises routing the packet, via a physical interface, to a destination indicated by a destination address

within the packet or based on the one or more routing policies, if the packet is determined not to be redirected to another destination..

10. The machine-readable medium of claim 8, wherein the method further comprises specifying a timeout value within the return packet to indicate a time period within which a redirect message is displayed at the remote client.
11. The machine-readable medium of claim 10, wherein the timeout value is determined based on the one or more routing policies associated with the packet.
12. The machine-readable medium of claim 8, wherein the method further comprises configuring the one or more policies via an application programming interface (API).
13. The machine-readable medium of claim 8, wherein the method further comprises:
 - determining whether one or more replacement routing policies exist for the context associated with the packet; and
 - replacing the original routing policies with the replacement routing policies for subsequent accesses, if the replacement routing policies exist.
14. The machine-readable medium of claim 8, wherein whether the packet should be redirected to another destination is determined based on whether the packet is an HTTP (hypertext transport protocol) packet.
15. A single network element, comprising:
 - a control engine having a redirect unit to redirect packets based on one or more routing policies associated with the packets; and

a forwarding engine coupled to the control engine to receive a packet from a remote client and to forward the packet to the redirect unit of the control engine for redirect processes.

16. The single network element of claim 15, further comprising a storage unit to store the one or more routing policies.
17. The single network element of claim 16, wherein the storage unit further stores one or more replacement policies, which when activated, are used to replace the original one or more routing policies for subsequent accesses.
18. The single network element of claim 15, further comprising a configuration unit to allow a user to configure, via an application programming interface (API), the one or more routing policies.
19. The single network element of claim 15, wherein the forwarding engine forwards the packet to the control engine if the packet is destined to a predetermined port.
20. The single network element of claim 15, wherein the forwarding engine forwards the packet to the control engine if the packet is an HTTP packet.